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Rotem

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(54) **SYSTEMS AND METHODS FOR IMPROVING TELECOMMUNICATIONS DEVICE EXPERIENCES**

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(51) **Int. Cl.**

H04M 11/00	(2006.01)
H04W 4/24	(2009.01)
H04M 15/00	(2006.01)
H04L 12/14	(2006.01)

(52) **U.S. Cl.**

CPC ***H04W 4/24*** (2013.01); ***H04L 12/1492*** (2013.01); ***H04M 15/80*** (2013.01); ***H04M 15/8022*** (2013.01); ***H04M 15/83*** (2013.01); ***H04M 15/8351*** (2013.01); ***H04M 15/858*** (2013.01); *H04L 12/1417* (2013.01)

(58) **Field of Classification Search**

USPC 455/404.2, 405, 406–408, 410–411, 455/412.2, 435.1

See application file for complete search history.

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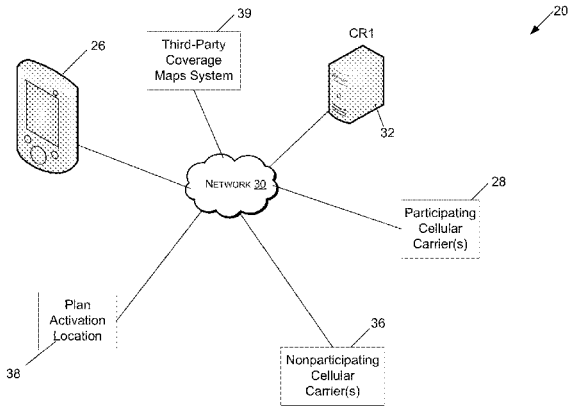
(57) **ABSTRACT**

Systems and methods for providing a better user experience and provider profitability. An exemplary system includes a telecommunications device subject to a cellular service plan from a cellular carrier. The telecommunications device includes an application program that gathers device usage data and determines whether the current cellular service plan is the best service plan based on gathered usage data. If a current cellular service plan is not the best service plan, based on the gathered usage data, then cellular service plans from the current cellular service provider or other service providers are measured against the gathered device-usage data to determine the best available service plan.

20 Claims, 6 Drawing Sheets



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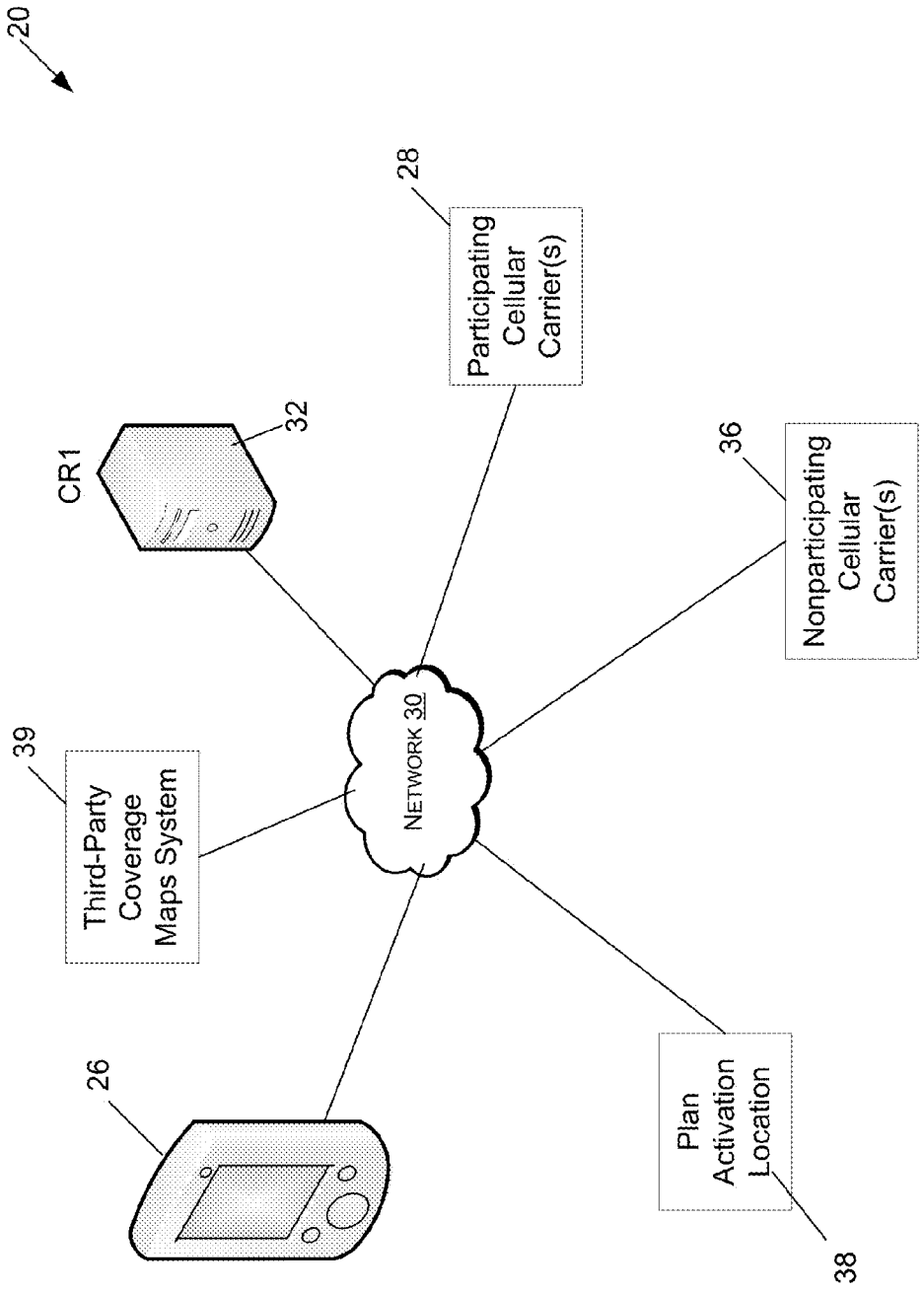
20
28
Participating Cellular Carrier(s)
CR1
32
36
Nonparticipating Cellular Carrier(s)
NETWORK 30
39
Third-Party Coverage Maps System
26
Plan Activation Location
38

FIG. 1.

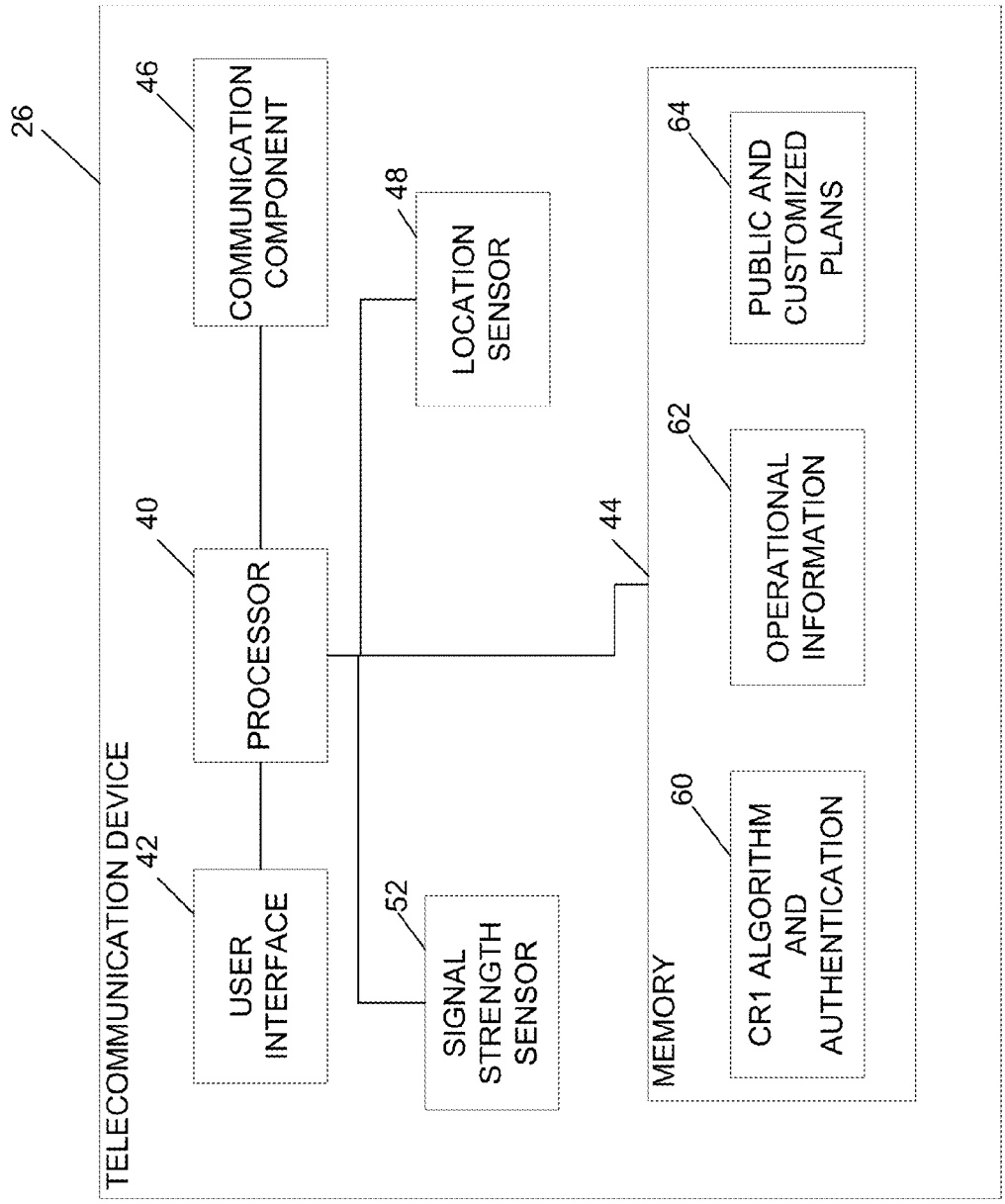
26
TELECOMMUNICATION DEVICE
42
USER INTERFACE
40
PROCESSOR
46
COMMUNICATION COMPONENT
48
LOCATION SENSOR
52
SIGNAL STRENGTH SENSOR
44
MEMORY
60
CR1 ALGORITHM AND AUTHENTICATION
62
OPERATIONAL INFORMATION
64
PUBLIC AND CUSTOMIZED PLANS

FIG. 2.

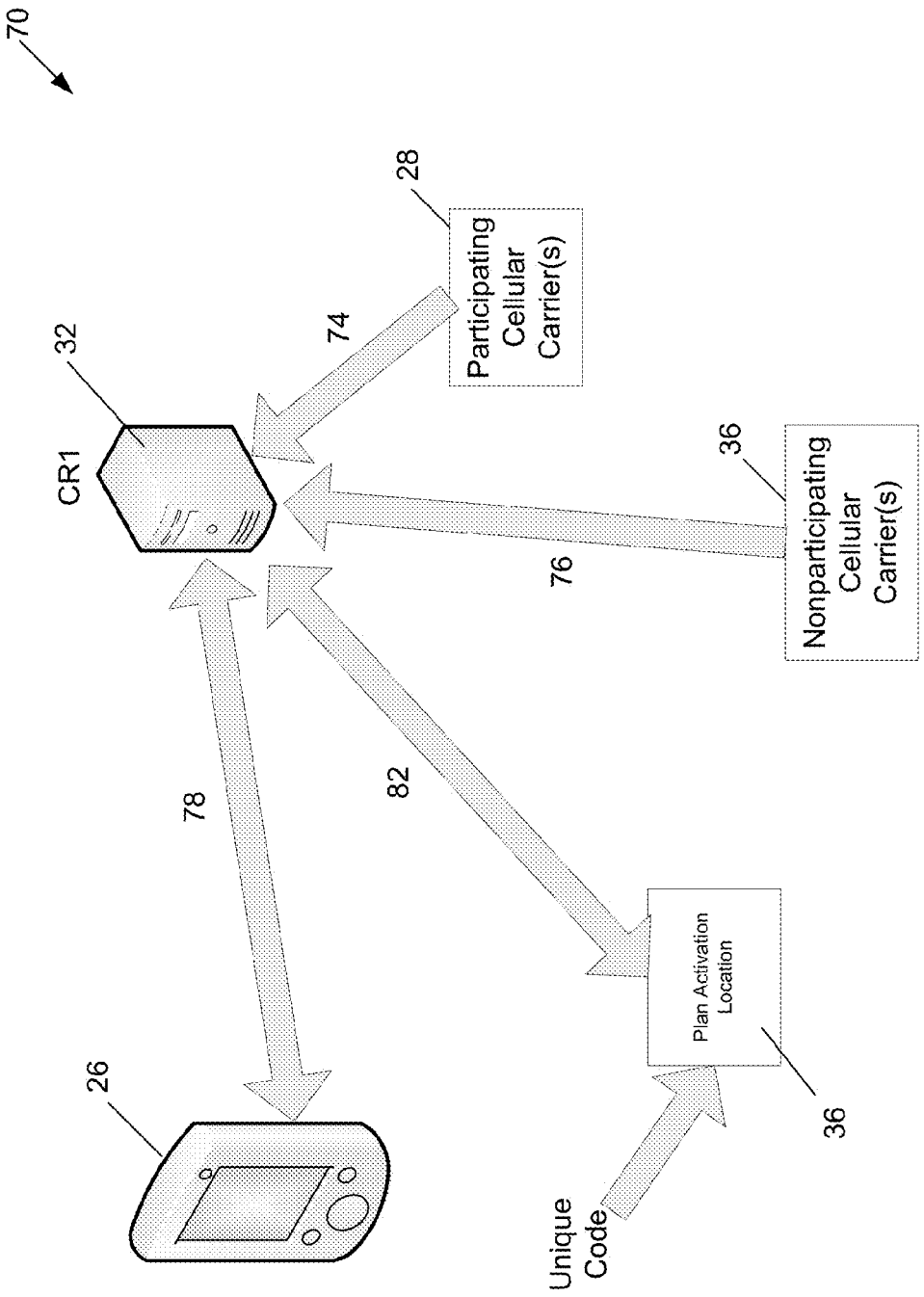
70
28
Participating Cellular Carrier(s)
74
32
CR1
36
Nonparticipating Cellular Carrier(s)
76
78
82
26
Plan Activation Location
36
Unique Code

FIG. 3.

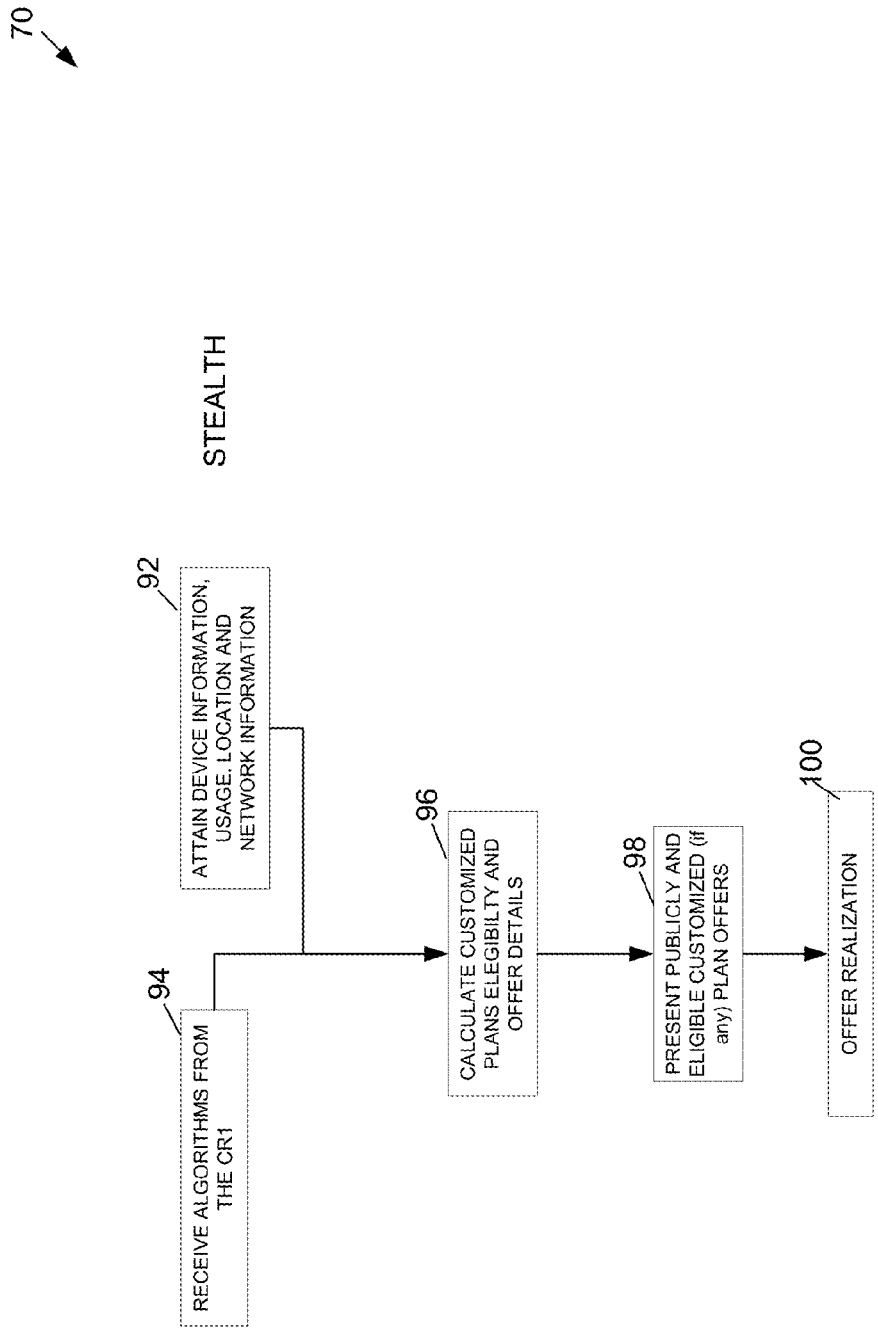
70
STEALTH
92
ATTAIN DEVICE INFORMATION, USAGE, LOCATION AND NETWORK INFORMATION
94
RECEIVE ALGORITHMS FROM THE CR1
96
CALCULATE CUSTOMIZED PLANS ELEGIBILITY AND OFFER DETAILS
98
PRESENT PUBLICLY AND ELIGIBLE CUSTOMIZED (if any) PLAN OFFERS
100
OFFER REALIZATION

FIG. 4.

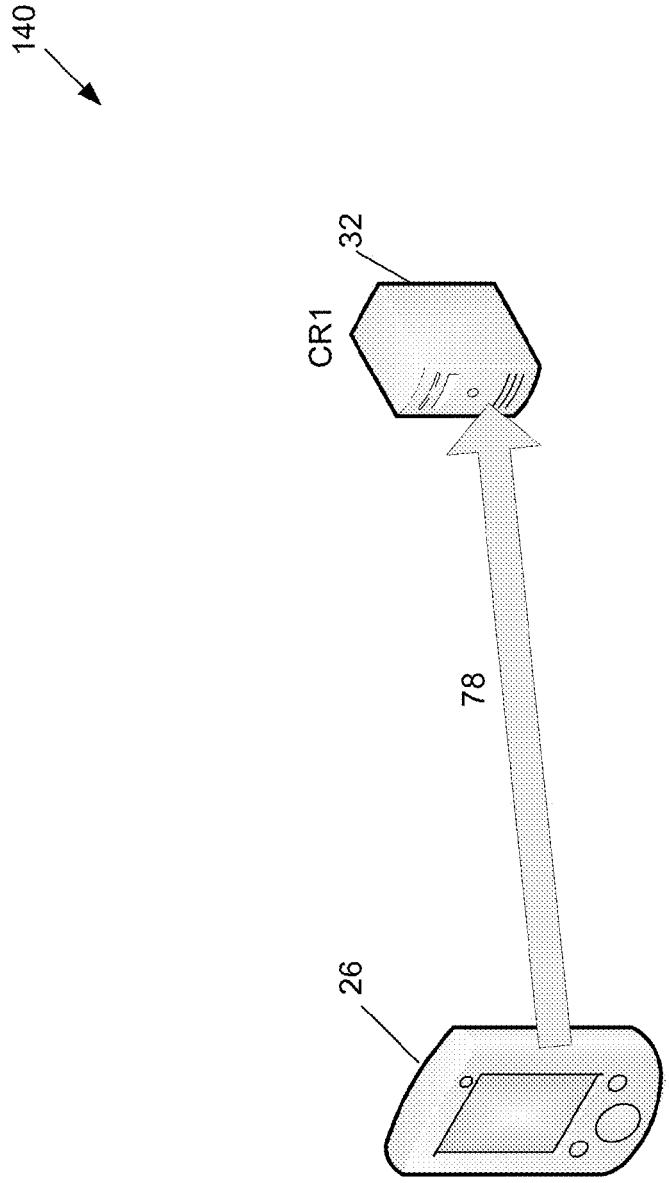

FIG. 5.

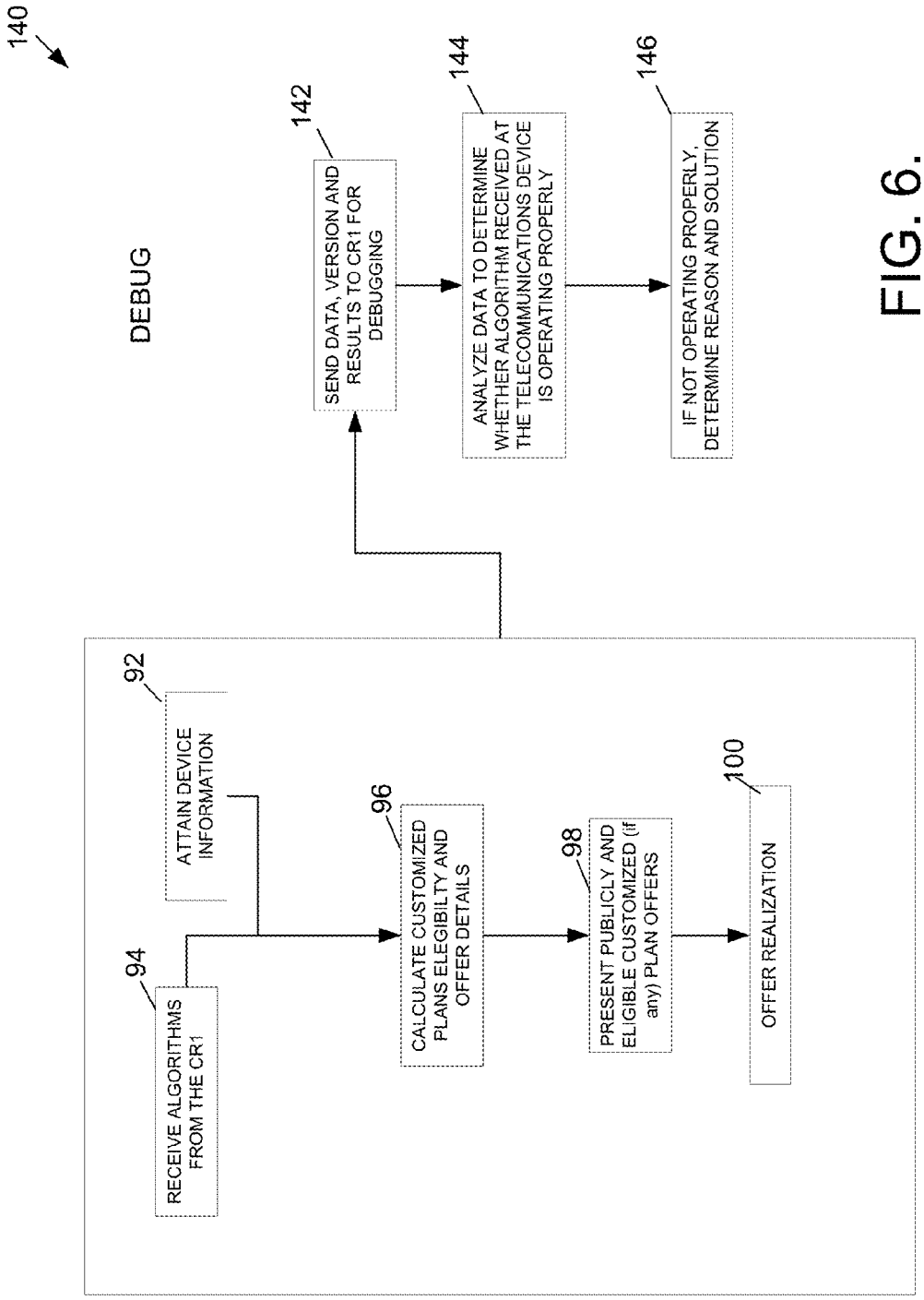
140
DEBUG
142
SEND DATA, VERSION AND RESULTS TO CR1 FOR DEBUGGING
144
ANALYZE DATA TO DETERMINE WHETHER ALGORITHM RECEIVED AT THE TELECOMMUNICATIONS DEVICE IS OPERATING PROPERLY
146
IF NOT OPERATING PROPERLY, DETERMINE REASON AND SOLUTION
92
ATTAIN DEVICE INFORMATION
94
RECEIVE ALGORITHMS FROM THE CR1
96
CALCULATE CUSTOMIZED PLANS ELEGIBILTY AND OFFER DETAILS
98
PRESENT PUBLICLY AND ELIGIBLE CUSTOMIZED (if any) PLAN OFFERS
100
OFFER REALIZATION

FIG. 6.

SYSTEMS AND METHODS FOR IMPROVING TELECOMMUNICATIONS DEVICE EXPERIENCES

RELATED APPLICATIONS

This application claims priority to U.S. provisional patent application No. 61/800,017, entitled "A Cellular Application for Enabling Carriers to Offer and Enter Into New Contract based on Expected Consumer Profitability" and filed on Mar. 15, 2013. Application No. 61/800,017 is fully incorporated herein by this reference.

BACKGROUND

A user who is not properly matched to his cellular plan increases risk to the service provider that the user will refuse to pay his bill, when it is higher than expected and includes charges that the user does not understand. Also, a customer faced with apparently mysterious charges may place excessive calls to customer care, thereby driving up those costs. Ultimately, a customer who is unhappy about high bills that he does not understand may switch to another carrier.

When cell phone users are looking for other plans, they can only receive information about the plans a cellular carrier might have that are based only on public information, such as a credit score. Credit score information provides only a small part of the total information that would permit a full evaluation of the desirability of acquiring a particular user by a prospective cellular carrier.

Thus, the user can find other service plans but has no idea how those plans would or would not save him money. Accordingly, the users frequently take the easiest path and recontract with their current carrier.

When a cellular service provider is trying to attract potential (dissatisfied) users it does not know if a user is likely to be highly profitable, slightly profitable, or will cause a net loss to the carrier. Abusive use of unlimited plans is an example, but certainly only one of many examples, of costs that might result in a customer causing a net loss for the cellular carrier.

BRIEF DESCRIPTION OF THE DRAWINGS

The detailed description is set forth with reference to the accompanying figures. The use of the same reference numbers in different figures indicates similar or identical items or features.

FIG. **1** illustrates an exemplary environment including a telecommunications device configured with an application program formed in accordance with an embodiment of the present invention.

FIG. **2** illustrates a component-level view of a telecommunications device equipped with an application program formed in accordance with an embodiment of the present invention.

FIG. **3** is a communication flow pictorial as it relates to components of the system shown in FIGS. **1** and **2**.

FIG. **4** is a processing flow diagram between the telecommunications device and a remote server (CR**1**) as it relates to FIG. **3**.

FIG. **5** is a communication flow pictorial as it relates to components of the system shown in FIGS. **1** and **2** in a "Debug mode" combined in some of embodiments with offer realization.

FIG. **6** is a processing flow diagram as it relates to FIG. **5**.

DETAILED DESCRIPTION

Overview

This disclosure describes, in part, an application program implemented at a telecommunications device to perform a determination of whether other telecommunication (i.e., cellular) plans provide a better value to the user of the telecommunications device and providers of telecommunications services.

In various embodiments, the telecommunications device receives an application program that includes cellular plan information for one or more cellular carriers (domestic). The application program analyzes usage/operational (including network coverage info) information of the telecommunications device relative to publicly available cellular plans and/or generates a customized cellular plan(s) by applying the usage/operational information to a participating carrier-designed algorithm(s). The usage/operational information of the telecommunications device may include a wide variety of usage information, such as cellular carrier use during operation, signal strength of the cellular carriers accessed during usage volume of calls and data used within each billing period, locations where usage occurred, etc. As a result of the analysis, the application program outputs to the user of the telecommunications device information about whether there are better cellular plans available for the user's particular usage. The application program then may allow the user to activate one of these suggested alternate cellular plans, either via a the application itself (for the participating carriers), by a network connection with the particular cellular carrier or by performing activation at a remote site, such as a store.

In various embodiments, the application program of the telecommunications device may send packets of information to a controlling server via a network connection. The packets of information relate to the application program process described above. The controlling server will analyze the information within the packets to determine whether the algorithm(s) performed properly and determine a reason for any improper performance of the algorithm(s).

Exemplary Environment and Devices

In one embodiment, an exemplary system **20** includes a plurality of user telecommunications devices **26**, at least one server (CR**1**) **32** and optionally one or more participating carriers **28** that are all in communication over some form of network **30** or combination of networks (e.g., telecommunications, public (Internet) or private). Optionally, the system **20** includes one or more non-participating carriers **36**, a plan activation location (e.g., a store front associated with one of the participating carriers **28**) **38** or a third-party map coverage system **39**.

The telecommunications devices **26** are currently operating under a previously selected telecommunications plan. The telecommunications device **26** manually or automatically receives an application program updates from a CR**1** **32**. The CR**1** **32** generates the application program after having retrieved public plan information for participating and non-participating carriers **28**, **36** and having received proprietary eligibility algorithms from the participating carriers **28**. After a predefined event, periodically or just at random, the telecommunications device **26** executes the application program. The application program retrieves a plurality of operational (usage) information from the telecommunications device **26** and runs that retrieved information through the proprietary eligibility algorithms and other algorithms that relate to the retrieved public plan information. The application program determines whether there are other cellular plans (public or customized offers) that would provide a greater benefit for the associated user. The results of this determination are presented to the user in a number of different ways.

In a stealth mode of operation, the user does not send any of the operational information to any entity over the network **30**. All data/information gathered at the telecommunications device **26** remains at the telecommunications device **26**. If the user desires to activate a customized offer that was included in

the application program results, then the user has the option to perform the activation by sending the user's plan choice with a verification code to CR1 **32**. The user also has the option not to send his selection and just show the device screen with the offer, his subscriber number and the verification code at a store of his selected carrier. The application program generates the verification code for each presented plan according to a unique code included in the application program. If CR1 **32** checks that the verification code is proper (i.e., CR1 **32** performs code verification, for a description see http://pecos.ices.utexas.edu/research/activities/code-verification/), then CR1 **32** informs the respective participating carrier **28** of the user choice, if the user had preferred to complete his choice by the application. The participating carrier **28** then completes the activation of the new plan. Alternatively, the user may present the user's plan choice with the verification code to the plan activation location **38** associated with the participating carrier **28**. The plan activation location **38** sends the user's plan choice with the verification code to CR1 **32** and the process is completed as described above or CR1 **32** sends a valid offer signal back to the plan activation location **38**, which then completes activation directly with its carrier **28**.

In a debug mode of operation, upon user approval, operational information of the telecommunications device **26** and application program information, data, and results are sent to CR1 **32**. Then, CR1 **32** analyzes the sent operational information to determine if the application program is operating properly. CR1 **32** attempts to determine a reason for any determined operational failure.

These modes of operation and the information used by the application program will be described in more detail below.

As shown in FIG. **2**, the telecommunications device **26** includes a processor **40** that is in signal communication with a user interface **42**, a memory device **44**, a communication component **46** (i.e., radio(s)), a location sensor **48**, and a signal strength sensor **52** (optional). The memory device **44** includes a plan option application program that includes a CR1 algorithm(s) and authentication information **60**, operational information **62** and public plan and/or customized plan information **64**.

The public plan and/or customized plan information **64** includes plans publicly available by searching the Internet or customize plan information previously provided to CR1 **32** by the particular participating carrier **28**.

The operational information **62** includes technical information, geographical information and usage information. The usage information (i.e., usage statistics) for the telecommunications device **26** includes information received from the processor **40** and/or the other components, such as information received from external sources via the communication component **46**, signal strength information from the signal strength sensor **52** (which may be included in the processor **40** or the communication component **46**), position information from the location sensor **48** and/or other components. Exemplary usage information includes number and length of time of calls and SMS messages, data usage, calls to a care center, calls to international destinations, etc.

Exemplary technical information includes information regarding the user's current cellular plan (e.g., cellular provider, current plan, number of minutes used, time left on current plan, etc.). Exemplary geographic information includes signal strength maps for the current cellular provider and other cellular providers, which may be retrieved from the third-party coverage maps system **39**. The technical information includes the user's contract details recorded at the time of contract execution. Alternatively, the application program either interrogates the user or analyzes other information without bothering the user to get service contract information that includes the contract expiration date information among other information. The application program gathers usage information.

The CR1 algorithm(s) and authentication information **60** is information provided by CR1 **32**. The CR1 **32** provides updates of the algorithm(s) and authentication information **60** whenever updates are available. The CR1 algorithm(s) and authentication information **60** includes algorithms provided by each of the participating carriers **28**. Each algorithm provided by of the participating carriers **28** is a proprietary program designed or parameters defined by each of the participating carriers **28** for analyzing the operational information **62** in order to determine whether there is a current plan provided by the particular participating carrier **28** or the participating carrier **28** can generate a customized plan that is financially beneficial to the customer based on the technical and usage information based on that data. The CR1 algorithm(s) and authentication information **60** also includes some form of authentication code.

In various embodiments, the telecommunications device **26** may be any sort of device capable of cellular or wireless network communication, such as a cellular phone, a tablet computer, a personal digital assistant (PDA), a personal computer (PC), a laptop computer, a media center, a work station, etc. The telecommunications device **26** may be associated with a subscription to telecommunication services of a network operator (i.e., the current cellular carrier **27**) of the network **30**.

In some embodiments, the telecommunications device **26** includes an operating system that may be any sort of telecommunications device operating system, such as an iOS®, an Android® operating system, a Windows® operating system, or a Unix-based operating system. In some embodiments, the operating system may expose or otherwise make available any of device information, network information, or user preferences.

In some embodiments, the processor **40** is a central processing unit (CPU), a graphics processing unit (GPU), or both CPU and GPU, or any other sort of processing unit.

In various embodiments, the memory **44** is volatile (such as RAM), nonvolatile (such as ROM, flash memory, etc.) or some combination of these. The telecommunications device **26** may also include additional data storage devices (removable and/or nonremovable) such as, for example, magnetic disks, optical disks, or tape. Tangible computer-readable media may include volatile and nonvolatile, removable and nonremovable media implemented in any method or technology for storage of information, such as computer-readable instructions, data structures, program modules, or other data. The memory **44**, removable storage and nonremovable storage are all examples of computer-readable storage media. Computer-readable storage media include, but are not limited to, RAM, ROM, EEPROM, flash memory, or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium that can be used to store the desired information and which can be accessed by the telecommunications device **26**. Any such tangible computer-readable media may be part of the telecommunications device **26**.

In some embodiments, the communication component **46** (i.e., radio) includes any sort of radio known in the art. For example, communication component **46** may include a radio transceiver that performs the function of transmitting and receiving radio frequency communications via an antenna. The communication component **46** may facilitate wireless

connectivity between the telecommunications device **26** and various cell towers, base stations and/or access points of the network **30**. In addition, the telecommunications device **26** may also include a wireless communication transceiver and a near field antenna for communicating over unlicensed wireless IP networks, such as local wireless data networks and personal area networks (e.g., Bluetooth or near field communication (NFC) networks) that may provide a direct connection to the Internet **34**.

In some embodiments, the user interface **42** has output devices that include any sort of output devices known in the art, such as a display (e.g., a liquid crystal display), speakers, a vibrating mechanism, or a tactile feedback mechanism. Output devices also include ports for one or more peripheral devices, such as headphones, peripheral speakers, or a peripheral display.

In various embodiments, the user interface **42** may also include input devices that include any sort of input devices known in the art. For example, input devices may include a camera, a microphone, a keyboard/keypad, or a touch-sensitive display. A keyboard/keypad may be a pushbutton numeric dialing pad (such as on a typical telecommunications device), a multikey keyboard (such as a conventional QWERTY keyboard), or one or more other types of keys or buttons, and may also include a joystick-like controller and/or designated navigation buttons, or the like.

In various embodiments, the location sensor **48** includes a global positioning system (GPS) that has functionality and logic capable of wirelessly communicating with a GPS system to receive GPS information, such as GPS coordinates, from the GPS system. The GPS exposes those GPS locations to the processor **40**. In another embodiment, the location sensor **48** attains rough location information based on location of the cellular tower that the device is currently communicating with.

In one embodiment, the telecommunications device **26** is originally provided with the application program already installed or the application program may be installed as part of a customization process performed by the telecommunications device manufacturer or by the current cellular carrier.

In some embodiments, the CR1 **32** (i.e., a server computer) may be an edge device of the core network and may communicate with another device of the core network, such as a gateway GPRS (general packet radio service) support node (GGSN), a serving gateway (SGW), or packet data network gateway (PGW). The access networks of the network **30** may each be associated with a specific geographic area (e.g., a cell, a macrocell, a microcell, a femtocell, etc.). In some embodiments, the network **30** may be a cellular network having a spectrum to allocate for cellular communications.

Exemplary Processes

FIG. **3** illustrates a data flow pictorial and FIG. **4** illustrates a data flowchart of an exemplary process **70** performed by components of the system **20** as it relates to the stealth mode of operation. Each operation of the process represents a sequence of operations that can be implemented in hardware, software, or a combination thereof In the context of software, the operations represent computer-executable instructions stored on one or more computer-readable storage media that, when executed by one or more processors, perform the recited operations. Generally, computer-executable instructions include routines, programs, objects, components, data structures, and the like that perform particular functions or implement particular abstract data types. The order in which the operations are described is not intended to be construed as a limitation, and any number of the described operations can be combined in any order and/or in parallel to implement the processes.

First, at a block **94**, the plan option application program (i.e., the algorithm(s) and authentication information **60** or the public plan and/or customized plan information **64**) is sent from the CR1 **32** is downloadable through another source (e.g., play store) to the device **26** along a communication path **78** between the device **26** and CR1 **32**. In parallel with the step performed at block **94**, operational information of the device **26** is obtained at a block **92**. Next, at a block **96**, the processor **40** executes the CR1 algorithm(s) to calculate whether any of the public plans when compared with the operational information **62** provide a viable option for the current user. This may be as simple as comparing the number of minutes to what those costs might look like in each of the public plans. This may also include a coverage analysis performed by comparing location information of the device **26** to coverage maps available publicly or received from the third-party coverage maps system(s) **39**. Also, the executed CR1 algorithm(s) calculate whether any of the associated participating carriers **28** can produce a customized plan that is eligible based on a comparison or an analysis of the operational information **62**. In one embodiment, production of a customized plan includes determining an average customer cash cost per user (CCPU). The CCPU uses a variety of the operational information **62** in order to determine the costs that may be incurred by the carrier for the associated user. Some of the operational information **62** that the CCPU uses includes percentage of bad debt information, carrier tenure information, calls to customer care or contract history, derived information, such as suspension history or any other information the carrier believes adds cost. The determination by the CR1 algorithm(s) whether a customized plan can be offered also analyzes an associated network coverage map associated with the user location information, international calling information, information regarding phones the user has previously owned, other technical information and/or other carriers' plans.

At a block **98**, the user is presented with any public and/or customized plans that are determined better than the user's current plan or are just considered a good offer. At a block **100**, offer realization occurs after a user decides that they wish to activate one of the presented plans. In one embodiment, the offer realization occurs between CR1 **32** and the device **26** along a communication path **78** once the user has made a selection from a graphical user interface presented on the user interface device **42**. Upon selection of one of the presented plans, information regarding the selected plan and authentication information are sent to CR1 **32**. The authentication information (code) is calculated by the application program (i.e., algorthim) based on the previously received unique authentication code as well as other information, such as the current phone number associated with the user or information related directly to the selected plan. Then, CR1 **32** analyzes the received authentication information to determine whether it is valid. If the authentication information is determined to be valid, CR1 **32** sends instructions to the participating carrier **28** associated with the selected plan. Then, that participating carrier **28** activates the newly selected plan. Activation of the newly selected plan may include sending an instruction to the user of the device **26** to proceed to an affiliated store, such as the plan activation location **38**, in order to pick up a new phone that was part of the newly selected plan.

Another offer realization includes presenting instructions on the user interface device **42** (i.e., a mapping program) to proceed to the (nearest) plan activation location **38** that is

associated with the participating carrier **28**. At the plan activation location **38** the user provides either directly or indirectly the authentication information and selected plan information to a local computing device (communication path) that is in data communication with CR**1** **32** along communication path **82**. CR**1** **32** then performs the verification step as described in the previous embodiment. CR**1** **32** provides a positive verification along the communication path **82** back to the plan activation location **38**. The plan activation location **38** or CR**1** **32** communicates with the participating carrier **26** in order to inform them of the selected plan upon positive verification.

Also shown in FIG. **3** is a communication path **74** between the participating carriers **28** and CR**1** **32**. Along the communication path **74**, each of the participating carriers **28** provides their proprietary algorithm as described above. CR**1** **32** may also pull public plan information from Web sites associated with the participating carriers **28** along the communication path **74** and pull public plan information from Web sites associated with the non-participating carriers **36** along a communication path **76**.

FIG. **5** illustrates a data flow pictorial and FIG. **6** illustrates a data flowchart of an exemplary process **140** performed by components of the system **20** as it relates to the debug mode of operation. In one embodiment, the user is provided a choice of which mode to operate in. If the user selects the debug mode, the user may be provided with some form of benefit. In the debug mode of operation, the steps as described above with regard to FIG. **4** occur without change. However, while the process steps **92**-**100** are occurring the processor **40** is instructed by a debug application program to send a variety of information to CR**1** **32** for analysis along the communication path **78**, see block **142**. The variety of information sent to CR**1** **32** includes, but is not limited to, computer information, application program information, selected offer information, operational information, presented offers, and/or a screenshot(s) presented by the user interface **42** at various stages of operation. The computer information may include information regarding the device **26**, the operating system executed on the device **26**, amount of memory available, amount of free memory available, version numbers of the device **26**, the operating system and/or information regarding other concurrently running software programs. The application program information includes versions of the algorithms included within the application program and/or memory usage associated with the application program. The selected offer information includes details of the offer selected and/or the verification code associated with presented or selected offer or with the algorithm used to generate the customize offers. At a block **144**, CR**1** **32** analyzes the data received from the device **26** to determine whether the application program and associated algorithms are operating properly. In other words, CR**1** **32** determines if the application program running on the telecommunications device **26** is doing exactly what it's designed to do. If CR**1** **32** determines that the application program and associated algorithms are not operating properly, CR**1** **32** determines the reason for the problem and any possible solutions, at a block **146**.

Other Embodiments

In one embodiment, the application program compares usage information against the service plan terms and informs the user about accumulated charges either periodically, each time a threshold of service charges is exceeded, or each time a rate of accumulation of service charges is exceeded. In one embodiment, the application program provides a qualitative indicator, showing if charge creation is low, normal, high, or very high (for example, in the case of data usage while roaming internationally). For example, an indicator icon is presented as green for low usage, yellow for normal usage, red for high usage, and flashing red for very high usage. Other graphical objects, colors, effects, etc. may be used for conveying similar differences in usage.

In one embodiment, if the user has given permission, then calls to carriers other than his current carrier cause the application program to initiate the request for bids process described above.

In one embodiment, the application program informs the user through a pop-up display when the charge accumulation rate exceeds normal usage. In a further embodiment, the application program gives a warning about the generated calls, displays a warning to the user of the expense that will incur, and/or gives the user the opportunity to continue the usage by pressing a button. In another embodiment, a code must be entered to approve the expensive usage, thereby preventing anyone using the cell phone from incurring the charges, without the consent of the user.

Monitored financial expenses might include: usage overage, roaming charges, international roaming charges, monthly recurring charges, one-time charges (like ringtone purchases), premium services, 411 calls, etc.

Also, in one embodiment, the service contract includes a provision that the carrier will charge only for extra services for which the user was advised of the expense, by way of the application. This provision will help to avoid expensive disputes and foster customer loyalty.

CONCLUSION

Although the subject matter has been described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described. Rather, the specific features and acts are disclosed as exemplary forms of implementing the claims.

What is claimed is:

1. A telecommunications device comprising:

a user interface device;

a processor in data communication with the user interface device;

a memory in data communication with the processor, the memory configured to store a plan option application program, the plan option application program comprises public plan information and one or more proprietary algorithms associated with one or more participating cellular carriers, the plan option application program being configured to cause the processor to:

a) obtain operational information of the telecommunications device;

b) determine whether any of the public plans provide a greater benefit to the user of the telecommunications device based on an analysis of at least a portion of the operational information;

c) determine whether any customized plans are eligible based on an analysis of the operational information using the proprietary algorithms associated with the participating cellular carriers;

d) present one or more of the public plans that provide a greater benefit or one or more of the customize plans determined eligible via the user interface device;

e) receive, via the user interface device (1) a request to activate one of the public plans or one of the customized plans and (2) a verification code associated with the respective plan.

2. The device of claim 1, further comprising at least one sensor configured to generate the operational information.

3. The device of claim 2, wherein the at least one sensor comprises at least one of a location sensor configured to generate location information of the telecommunications device or a signal strength sensor configured to determine signal strength information, wherein the signal strength information comprises signal strength information at geographical locations associated with usage of the telecommunications device.

4. The device of claim 1, further comprising a communication component in data communication with the processor and one or more networks, wherein the processor, as commanded by the plan option application program, retrieves updates to the plan option application program via the communication component.

5. The device of claim 1, wherein the processor is further configured to:

determine if a current action being performed by the cellular telecommunications device is incurring extra costs to the user, based on a cellular plan currently associated with the user; and

initiating the actions performed in steps c) and d), if it is determined that the current action is incurring extra costs.

6. The device of claim 1, wherein the operational information comprises at least one of information regarding roaming usage incurred over a previous time period, information about all cellular carriers that were used to transmit voice or data signals to or from the telecommunications device, information regarding usage statistics of communication with at least one of customer care or technical support or an estimate of the future network load and expenses that will be created by the user for the at least one of the cellular carriers.

7. The device of claim 1, wherein the operational information includes at least one of an estimate of a best price plan and features, an estimate of a customer's actual expected stay period for a cellular contract, an estimate of expected collection efforts required to receive the payments, an estimate of probability and amount of bad debt expected for the user, an estimate of total contract revenue and profit for each bidding carrier, a recommendation for each carrier whether or not to bid for the new contract or a recommendation as to contract terms to be bid.

8. The device of claim 1, wherein the processor, as instructed by the application program, accesses information regarding an expiration date of a currently active cellular service plan or determines a first cellular service plan's estimated expiration date and performs the steps a) through d) at a predetermined time relative to the expiration date or the estimated expiration date.

9. The device of claim 1, wherein the operational information comprises at least one volume of calls, short messaging device messages, data downloads or information regarding time of day of the volume of calls, peak volume of calls, short messaging device messages, data downloads and uploads per at least one of unit of time duration or data session, volume of calls and short messaging device messages performed directly to at least one of international destinations, net-settlement destinations, discounted international calls to provider access numbers, domestic and international roaming usage, periods during which there were no outgoing calls except for the contract carrier's customer-care and emergency numbers, periods during which no incoming calls were accepted or frequently contacted telephone numbers.

10. The device of claim 1, wherein the processor, as instructed by the application program, is further configured to:

display plans on a display of the user interface;

receive a plan selection via the user interface;

direct the user to nearby shops, a customer-care telephone number, or a Web site associated with the user's selected plan; and

provide a verification code for allowing the user to complete a contracting process and activate the selected plan.

11. The device of claim 10, further comprising a communication component in data communication with the processor and one or more networks, wherein the processor, as instructed by the application program, is further configured to:

send at least one of the operational information, displayed plans or selected plan information to a debug server via the communication device.

12. The device of claim 11, wherein the sent selected plan information comprises one or more screenshots of a graphical user interface presented by the user interface device.

13. A telecommunications method comprising:

at a memory device of a telecommunications device, storing a plan option application program, the plan option application program comprises public plan information and one or more proprietary algorithms associated with one or more participating cellular carriers;

at a processor of the telecommunications device, obtaining operational information of the telecommunications device;

determining whether any of the public plans provide a greater benefit to the user of the telecommunications device based on an analysis of at least a portion of the operational information; and

determining whether any customized plans are eligible based on an analysis of at least the portion of the operational information using at least one of the proprietary algorithms associated with the participating cellular carriers; and

at a user interface of the telecommunications device, presenting, via the user interface, one or more of the public plans, one or more of the customize plans, or both that are determined to be eligible that provide greater benefit and;

receiving, via the user interface, (1) a request to activate one of the public plans or one of the customized plans and (2) a verification code associated with the respective plan.

14. The method of claim 13, further comprising at least one sensor of the telecommunications device generating the operational information, wherein the operational information comprises at least one of location information or signal strength information.

15. The method of claim 13, wherein the operational information comprises at least one of roaming usage incurred over a previous time period, information about all cellular carriers that were used to transmit voice or data signals to or from the telecommunications device, usage statistics of communication with at least one of customer care or technical support, or an estimate of the future network load and expenses that will be created by the user for the at least one of the cellular carriers.

16. The method of claim 13, further comprising, at the processor directing the user to nearby shops, a customer-care telephone number, or a Web site associated with the user's selected plan.

17. The method of claim 16, wherein presenting further comprises providing the verification code for allowing the user to complete a contracting process and activate the selected plan.

18. The method of claim 17, further comprising at a remotely located server device

analyzing the user selected plan and the associated verification code to determine if the user selected plan is valid; and

sending a plan completion instruction to the participating carrier associated with the user selected plan, if the user selected plan was determine valid.

19. The method of claim 13, further comprising sending at least one of the operational information, displayed plans or selected plan information to a debug server via a communication device of the telecommunications device.

20. The method of claim 19, wherein the sent selected plan information comprises one or more screenshots of a graphical user interface presented by the user interface device.

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